

ENTRY PIAZZA

# BUCKINGHAM PRIMARY + ELEMENTARY SCHOOL





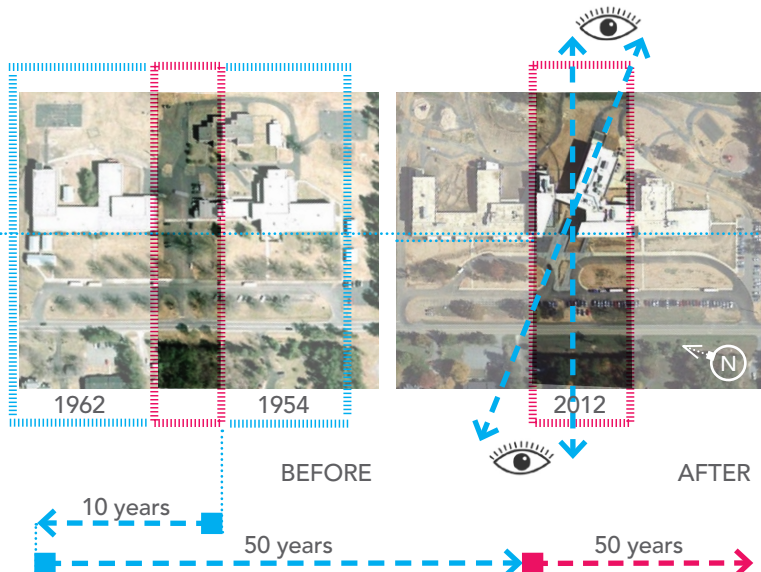
LIBRARY / TERRACE / OUTDOOR DINING LAB / BUCKINGHAM SLATE / BRIDGE

# BUCKINGHAM PRIMARY + ELEMENTARY SCHOOL





# reNEW, reUSE, reINVEST



## PHYSICAL ACTIVITY ZONES

- 1 Slate + Grass Piazza
- 2 Gymnasias + Fitness Rooms
- 3 K-2 Play Terrace + Water Station
- 4 3-5 Play Terrace + Water Station
- 5 Tot Lot Natural Play Area
- 6 Eco-Walks / Jogging Paths
- 7 Recreational Sport Fields
- 8 Open Play Area + Grass Surface
- 9 Community Room
- 10 K-2 Exercise + Meditation Loop
- 11 3-5 Exercise + Meditation Loop
- 12 Woodland Hub
- 13 Monumental Slate Stair
- 14 Weekend + Off Peak Bicycle Loops

## FOODSMART KIDS® ZONES

- 1 Dining Commons + Food Lab
- 2 Teaching Kitchen Lab
- 3 Kitchen Gardens
- 4 Edible Community Gardens
- 5 Great Lawn + Grab-n-Go Berry Patch
- 6 Fruit Tree Allée
- 7 Nut Tree Circle
- 8 Compost Demonstration Garden
- 9 Picnic Knoll
- 10 Outdoor Dining + Garden Classroom

## ECO-ACTIVITY ZONES

- 1 Bioswales + Cleansing Biotopes
- 2 Slate Channel + Waterfall Scupper
- 3 River Rock Stream + Native Meadow
- 4 Frog Bog + Observation Deck
- 5 K-2 Science Garden
- 6 Arts Terrace + Garden Courtyard
- 7 Sonata Terrace + Garden Courtyard
- 8 Pollinator Bee + Bug Garden
- 9 Pervious Parking Garden



# LEARNING ECOLOGY

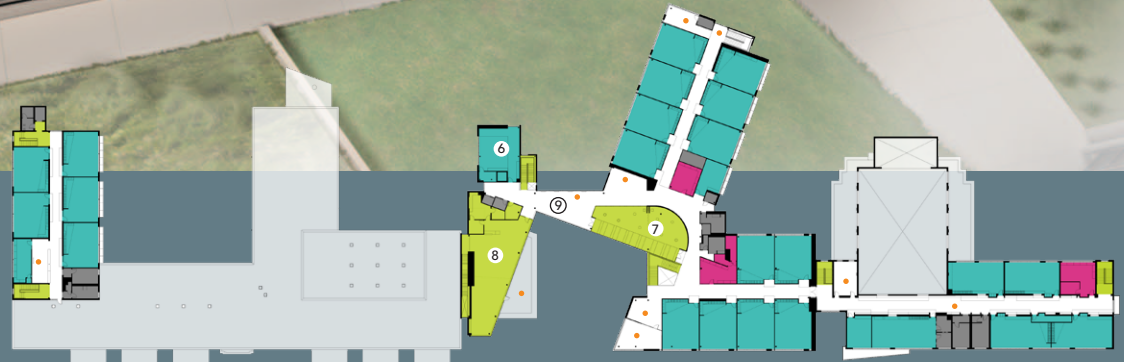


NW CORNER OF PIAZZA

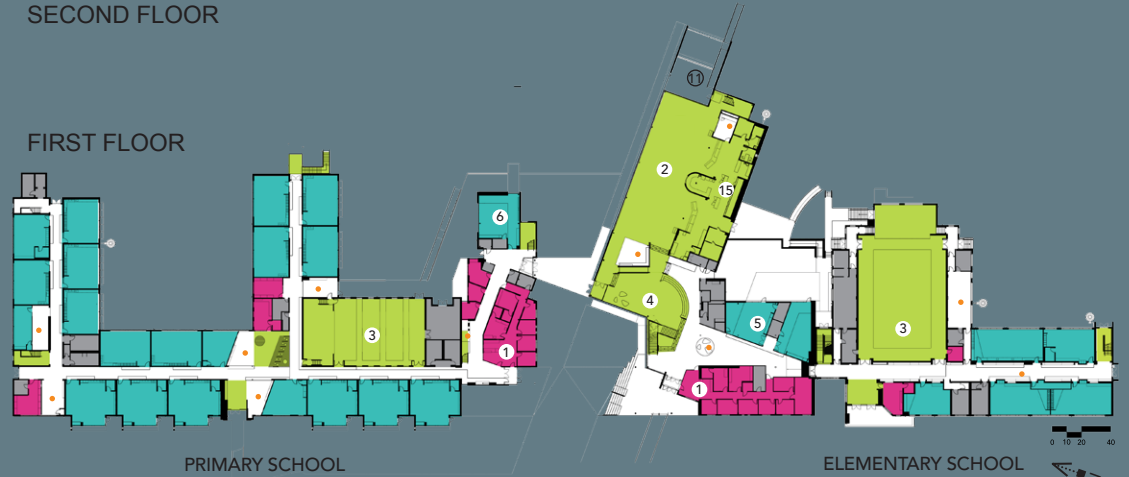
DAYLIGHT HARVESTING

LAB

NESTS



FIRST FLOOR



- |                     |                     |                         |                         |
|---------------------|---------------------|-------------------------|-------------------------|
| 1 RECEPTION         | 7 MEDIA LAB         | 13 TEACHING KITCHEN     | CLASSROOMS              |
| 2 DINING COMMONS    | 8 LIBRARY / TERRACE | 14 COMPOSTING TRAY DROP | SHARED SPACES           |
| 3 GYMNASIUM         | 9 BRIDGE            | 15 OPEN KITCHEN         | TEACHER COLLABORATION   |
| 4 COMMUNITY MEETING | 10 KITCHEN GARDENS  | 16 CORNER BAKERY        | SMALL GROUP / OPEN LABS |
| 5 MUSIC STUDIOS     | 11 OUTDOOR DINING   | 17 FOOD LAB / LOUNGE    | OTHER                   |
| 6 ART STUDIOS       | 12 OUTDOOR LAB      | 18 MONUMENTAL STAIR     |                         |







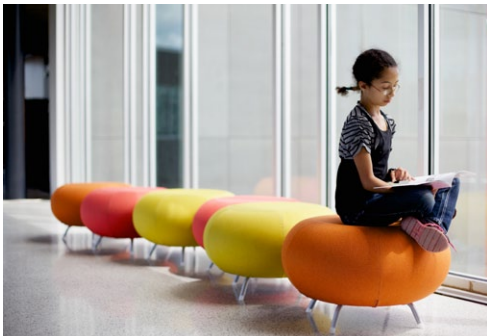














# DESIGN RESEARCH COLLABORATIVE

# STOP IGNORING THE EVIDENCE

## HEALTHY EATING DESIGN GUIDELINES FOR SCHOOL ARCHITECTURE®

- 1 PROVIDE equipment and spaces that facilitate the incorporation of fresh and healthy food choices into the school and its community.
- 2 PROVIDE facilities to directly engage the school community in food production and preparation.
- 3 APPLY evidence- and theory-based behavioral science principles to 'nudge' the school community towards healthy-eating behaviors and attitudes.
- 4 USE building and landscape features to promote awareness of healthy and sustainable food practices.
- 5 CONCEIVE and articulate school spaces as community assets to multiply the benefits of school-based healthy food initiatives.

A NEW DIRECTION IN DESIGN  
FOR FOODSMART KIDS™



## TRANSDISCIPLINARY PRACTICE MODEL FOR NEW LEARNING + HEALTH ECOLOGIES



### Perspective

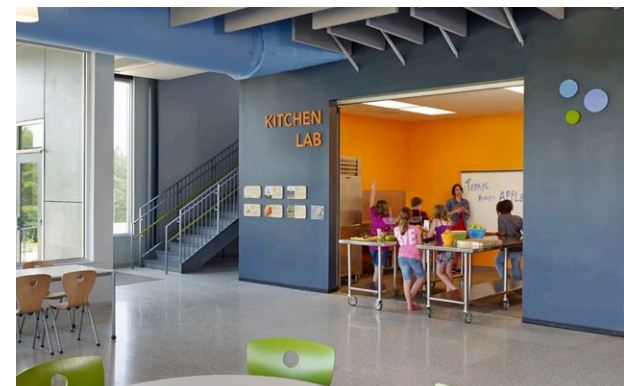
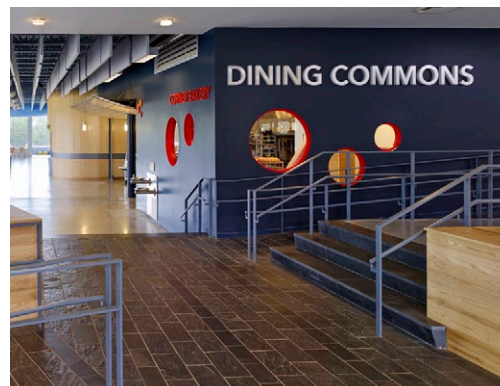
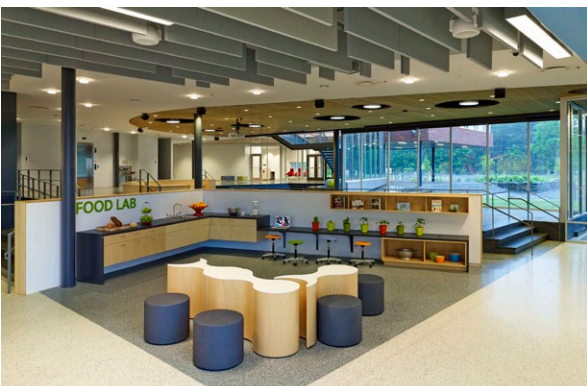
### Designer Schools: The Role of School Space and Architecture in Obesity Prevention

Nicholas Gorman, Jeffery A. Lackney, Kimberly Rollings, and Terry T.-K. Huang

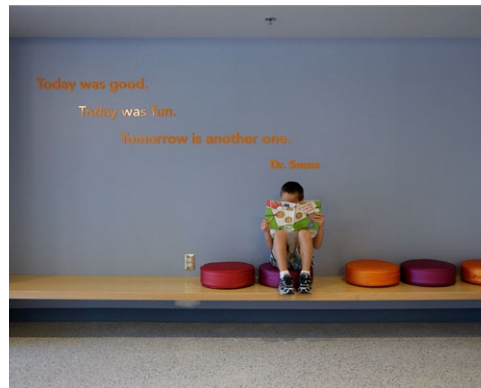
**Abstract**  
GORMAN, NICHOLAS, JEFFERY A. LACKNEY, KIMBERLY ROLLINGS, AND TERRY T.-K. HUANG. Designer schools: the role of school space and architecture in obesity prevention. *Obesity*, 2007.15:2521-2530.  
Spatial features of obesogenic environments studied on a broad community level have been associated with childhood overweight and obesity, but little research has focused on the effects of the design of micro spaces, such as schools, on individual health behaviors. This article aims to generate thinking and research on the link between school space and architecture and obesity prevention by reviewing and synthesizing available literature in architecture, environmental psychology, and obesity research, in an effort to propose promising ideas for school space design and redesign. The school environment is defined through 5 dimensions: physical, legal, policy, social, and cultural domains. Theories underlying environmental interventions and documented associations between the environment and health behaviors and outcomes are reviewed to illustrate how existing environmental research could translate to obesity prevention. Design strategies aimed at promoting physical activity and

**Key words:** childhood obesity, environmental factors, prevention, public health, energy balance  
**Introduction**  
Efforts to identify factors contributing to rising obesity rates in the United States and beyond have implicated the burgeoning obesogenic environment as a key determinant of obesity-related health behaviors (1). Given the potential for long-term individual benefits and large population-level impact, prevention among school-age children has become critical (2). In today's society, schools are no exception: exposure to labor-saving technologies and access to unhealthful foods abound. Walks or bike rides to schools are increasingly displaced by car rides, as convenience and safety concerns prevail (3-5). Once at school, students have ready access to fast food and vending machines due to partnerships meant to offset school budget shortcomings (4,6,7). The lack of time, funding, access, and planning and increased competition with various academic demands have also reduced in-school opportunities for physical activity and healthful eating (2,6). The combination of these and other factors have resulted in an environment that users











# SUSTAINABLE STRATEGIES



3

VIRGINIA  
WETLANDS



4

VIRGINIA  
RIVERS



5

VIRGINIA  
OCEAN



CORRIDOR BEFORE [1954-2010]



CORRIDOR AFTER\_GRAPHIC STREET



# SUSTAINABLE STRATEGIES



K

VIRGINIA  
MOUNTAINS



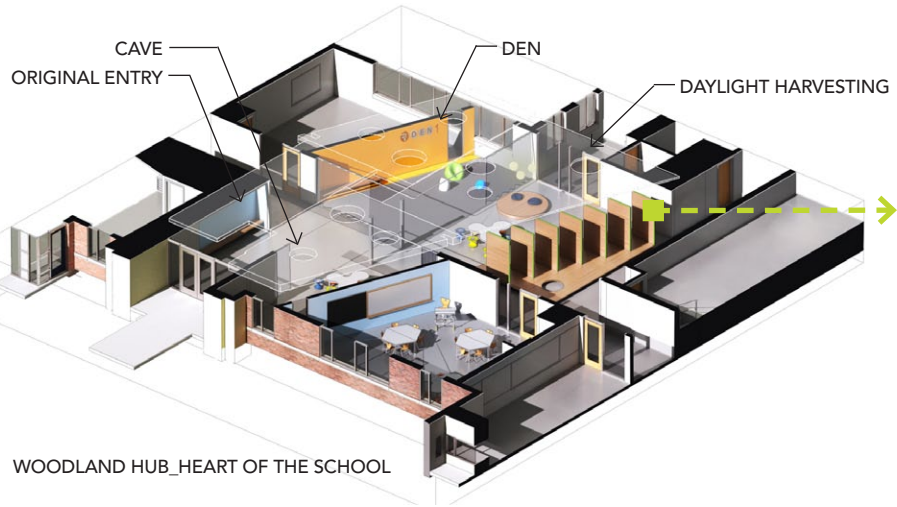
1

VIRGINIA  
FORESTS



2

VIRGINIA  
PRAIRIES



WOODLAND HUB\_HEART OF THE SCHOOL



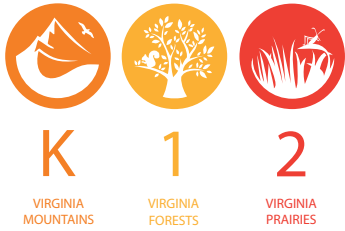
CORRIDOR BEFORE [1962-2002]



CORRIDOR AFTER\_TREE CANOPY PLATFORM



# SUSTAINABLE STRATEGIES

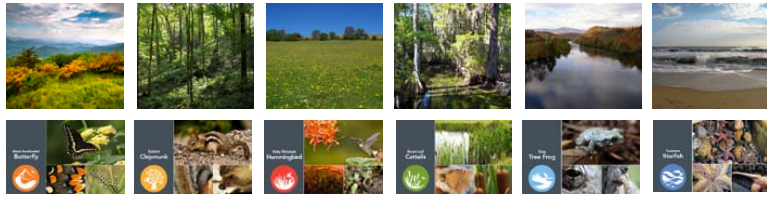




# SUSTAINABLE STRATEGIES



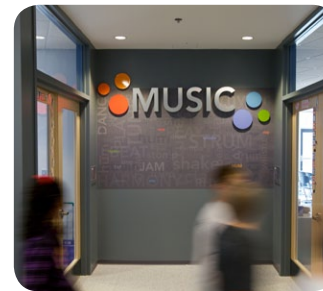
WAYFINDING



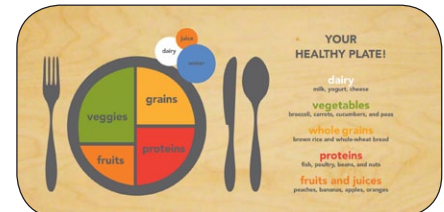
CLASSROOMS



LEARNING STREET



C SHARED SPACES



FACTOIDS



BUCKINGHAM PRIMARY + ELEMENTARY SCHOOL



01

BUCKINGHAM PRIMARY + ELEMENTARY SCHOOL



02

site plan

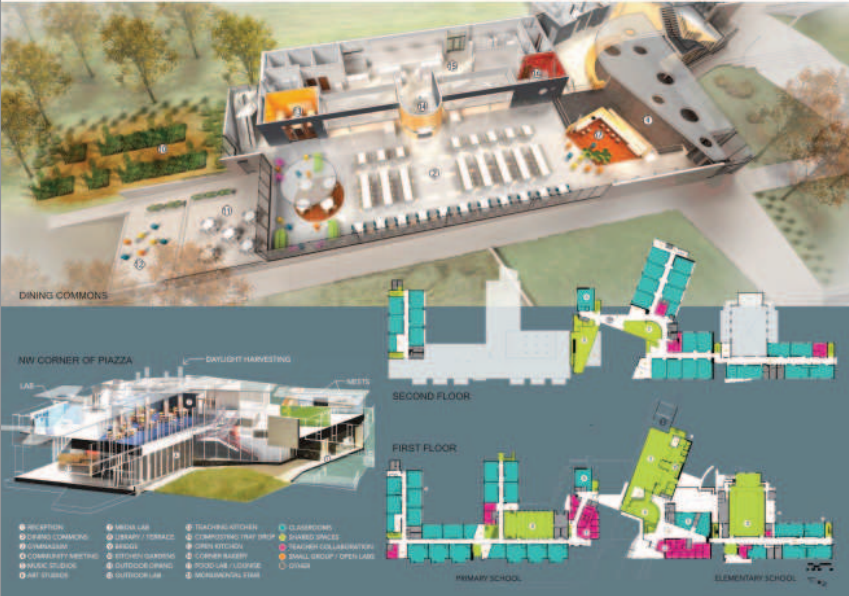
reNEW, reUSE, reINVEST



03

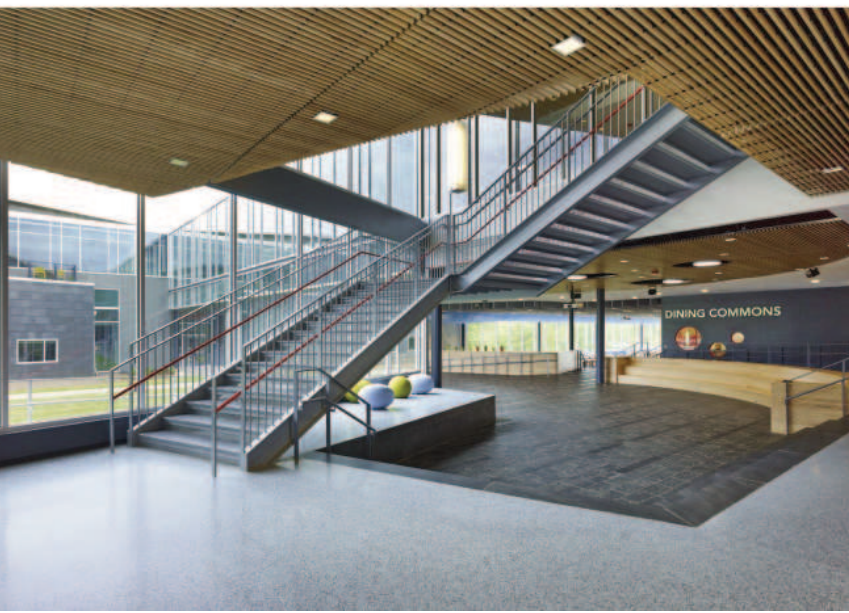
floor plans

LEARNING ECOLOGY



04

COMMUNITY MEETING / DINING COMMONS



05

MEETING



06

LIBRARY



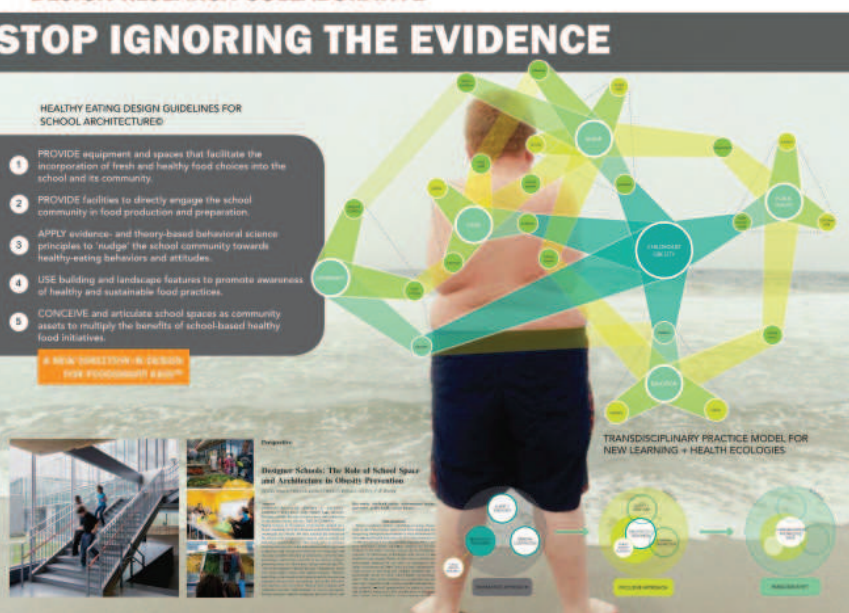
07

SMALL GROUP LEARNING / ART STUDIO / TEACHER HUB / BRIDGE / RESOURCE BAR



08

DESIGN RESEARCH COLLABORATIVE



09

DINING COMMONS / FOOD LAB / OPEN KITCHEN / CORNER BAKERY / TEACHER KITCHEN



10

WOODLAND HUB / SMALL GROUP / BRIDGE / GO COMMONS



11

SUSTAINABLE STRATEGIES



12

SUSTAINABLE STRATEGIES



13

SUSTAINABLE STRATEGIES



14

SUSTAINABLE STRATEGIES



15



16